

WHAT IS CLAIMED IS

1. A mixture of biodegradable polyesters which includes:

(A) an aromatic-aliphatic polyester with a melting point of between 50° and 170°C;

(B) an aliphatic polyester with a molecular weight M_w greater than 60,000 and a melting point of between 50° and 95°C;

(C) a polylactic acid polymer which contains at least 75% of L-lactic or D-lactic acid, or combinations thereof, with a molecular weight M_w greater than 30,000, in which the concentration of A varies with respect to (A+B) in the range of between 40 and 70% by weight, and the concentration of C with respect to (A+B+C) is of between 6 and 30%, preferably of between 10 and 25% by weight.

2. A mixture of biodegradable polyesters according to Claim 1, in which the aliphatic polyester (B) is a diacid/diol obtained from an aliphatic diacid such as azelaic, sebacic or brassylic acid and makes up more than 50% in moles of the total diacid content.

3. A mixture of biodegradable polyesters according to Claim 1, in which the aliphatic polyester is poly- ϵ -caprolactone or co-polymers thereof.

4. A mixture of biodegradable polyesters according to Claim 1, in which the modulus of the aromatic-aliphatic polyester (A) is less than 150 MPa and its elongation to breaking is greater than 500% for film with a thickness of between 25-30 μ m produced by the blown method.

5. A mixture of biodegradable polyesters according to Claim 1, in which the modulus of elasticity of the aliphatic polyester (B) is of between 200 and 900 MPa and its elongation to breaking is greater than 200%, preferably >300%, for film with a thickness of between 25-30 μ m, produced by the blown method.

6. A mixture of biodegradable polyesters according to Claim 1, in which the modulus of the polylactic acid polymer (C) is greater than 1,500MPa.

7. A mixture of biodegradable polyesters according to Claim 1, in which:

- the aromatic-aliphatic polyester (A) has a modulus of less than 150MPa, elongation to breaking of more than 500% for film with a thickness of 25-30μm, produced by the blown method;
- the aliphatic polyester (B) has a modulus of elasticity of between 200 and 900 MPa, elongation to breaking of more than 200%, {preferably >300%}, for film with a thickness of 25-30im, produced by bubble forming;
- the polylactic acid polymer (C) has a modulus greater than 1,500 MPa.

8. A mixture of biodegradable polyesters according to Claim 1, in which the aromatic-aliphatic polyester is biodegradable according to standard CEN13432.

9. A mixture of biodegradable polyesters according to Claim 1, in which the melting point of the aromatic-aliphatic polyester (A) is of between 50° and 170°C, preferably of between 80° and 120°C.

10. A mixture of biodegradable polyesters according to Claim 1, in which the melting point of the aliphatic polyester (B) is of between 50° and 95°C.

11. Film produced from mixtures of biodegradable polyesters according to Claim 1.

12. Film according to Claim 11, characterised by tear resistance in both directions, according to the Elmendorf test, of between 15 and 100N/mm, preferably of between 20 and 90N/mm and even more preferably of between 25 and 80N/mm.

13. A film according to Claim 12, characterised in that the ratio of transverse to longitudinal tear resistance, according to the Elmendorf test, is of between 3.5 and 0.4.

14. Film according to Claim 11, characterised in that the modulus value is of between 150 and 800 MPa, and {preferably of between 250 and 750MPa. }

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15. Use of the film according to Claim 1, for food packaging, for containing organic residue and for agricultural mulching.

16. Compact sheet manufactured with mixtures according to Claim 1 for food containers, containers for seedlings and industrial containers in general.

17. Foam sheet manufactured with mixtures according to Claim 1 for food and other containers and for industrial packaging.

18. Fibres manufactured with mixtures according to Claim 1 for textiles and non-woven fabrics used in the hygiene, fashion and industrial sectors.

19. A coating material manufactured with mixtures according to Claim 1 for application to paper, textiles, non-woven fabrics or other layers of compact or expanded biodegradable material.

20. A mixture of biodegradable polyesters according to Claim 1 in combination with destructured starch, natural starch or modified starch, where the starch is in a complex or not complex dispersed phase.